

CLAIMS

Now, therefore, at least the following is claimed:

- 1           1.     A system for automatically cropping graphical images, comprising:  
 2           memory for storing digital data that defines a graphical image;  
 3           an object detector configured to analyze said digital data and to automatically  
 4           identify a portion of said digital data that defines an image of an object within said  
 5           graphical image; and  
 6           an image cropper configured to automatically crop said digital data based on a  
 7           position of said object image within said graphical image, said image cropper  
 8           configured to determine said position of said object image within said graphical image  
 9           based on said portion automatically identified by said object detector.
- 1           2.     The system of claim 1, wherein said object image is an image of a  
 2           person's face, and wherein said object detector is configured to search said digital data  
 3           for portions that define facial images.
- 1           3.     The system of claim 1, wherein said image cropper is configured to  
 2           crop said digital data based on a size of said object image.
- 1           4.     The system of claim 1, wherein said image cropper is configured to  
 2           crop said digital data based on said position of said object image such that said object  
 3           image is substantially centered between two edges of said graphical image.

Sub A2  
1 5. The system of claim 1, wherein said image cropper is configured to  
2 crop said digital data based on said position of said object image such that said portion  
3 is removed from said digital data that defines said graphical image.

1 6. The system of claim 1, further comprising:  
2 an input device for receiving an input from a user; and  
3 a system manager configured to enable said image cropper based on said user  
4 input.

1 7. The system of claim 1, further comprising an image capturing device  
2 configured to receive an image of a scene and to produce said digital data based on  
3 said image received by said image capturing device.

1 8. The system of claim 7, wherein said image capturing device includes a  
2 lens for receiving said image of said scene and an image converter for producing said  
3 digital data based on said image of said scene.

Sub A3  
1 9. A system for automatically cropping graphical images, comprising:  
2 memory for storing digital data that defines a graphical image;  
3 means for automatically identifying a portion of said digital data that defines  
4 an image of an object within said graphical image; and  
5 means for automatically cropping said digital data based on a position of said  
6 object image within said graphical image, said cropping means configured to  
7 determine said position of said object image within said graphical image based on said  
8 portion automatically identified by said identifying means.

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1           10.     The system of claim 9, wherein said object image is an image of a  
2     person's face, and wherein said identifying means is configured to search said digital  
3     data for portions that define facial images.

1           11.     The system of claim 9, wherein said cropping means is configured to  
2     crop said digital data based on a size of said object image.

1           12.     The system of claim 9, wherein said cropping means crops said digital  
2     data based on said position of said object image such that said object image is  
3     substantially centered between two edges of said graphical image.

1           13.     The system of claim 9, wherein said cropping means crops said digital  
2     data based on said position of said object image such that said portion is removed  
3     from said digital data that defines said graphical image.

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1           14.     The system of claim 9, further comprising:  
2                 means for receiving an input from a user; and  
3                 means for enabling said cropping means based on said user input.

1           15.     The system of claim 9, further comprising a means for receiving an  
2     image of a scene and for producing said digital data based on said image received by  
3     said receiving means.

1 16. A method for automatically cropping graphical images, comprising the  
2 steps of:

3 storing digital data that defines a graphical image;

4 automatically searching said digital data for a portion of said digital data that  
5 defines an image of a particular object;

6 identifying said portion based on said searching step;

7 determining, based on said identified portion, a position of said object image  
8 within said graphical image; and

9 automatically cropping said digital data based on said position of said object  
10 image.

1 17. The method of claim 16, wherein said particular object is a person's  
2 face.

1 18. The method of claim 16, wherein said cropping step is further based on  
2 a size of said object image.

1 19. The method of claim 16, further comprising the step of:  
2 substantially centering said object image between two edges of said graphical  
3 image via said cropping step.

1 20. The method of claim 16, further comprising the step of:  
2 removing, via said cropping step, said portion from said digital data that  
3 defines said graphical image.

1           21.    The method of claim 16, wherein said searching and cropping steps are  
2 automatically performed in response to said storing step.

1           22.    The method of claim 16, further comprising the steps of:  
2           receiving an input from a user; and  
3           enabling said cropping step based on said user input.

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